

YOGA PRACTICE ENHANCES THE LEVEL OF SELF-ESTEEM IN PRE-ADOLESCENT SCHOOL CHILDREN

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Abstract:

Yoga had been reported to have shown the beneficial effects on different psychophysiological variables. The present study aimed to assess the effect of yoga on the level of self-esteem in pre-adolescents school going children. Forty-four participants (from a school in Haridwar, India) ages ranged between 10 and 12 years (group mean ages 11.27 ± 0.82 years) were randomized to a yoga group and a control group. The yoga group practiced yoga (breathing techniques, postures and relaxation technique), for 35 minutes daily for six days a week for one month while the control group didn't receive any intervention. Self-esteem was assessed using the Indian adaptation of Battle's self-esteem inventory for children before and after one month of intervention. This was an experimental-control group study. Unpaired t-test was used to compare data recorded after one month. The yoga group showed a significant increase in the level of overall ($p < 0.05$), general ($p < 0.01$) and social self-esteem ($p < 0.01$). Yoga improved the self-esteem level in pre-adolescent school children so same should be employed as part of school curriculum.

Key words: *Self-esteem Pre-adolescence Yoga*

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Introduction:

Self-esteem is a judgment of one's own self as well as an attitude towards the self. It is the evaluative dimension of the self [1]. Smith and Mackie defined and discriminated it with self-concept as - 'the self-concept is what we think about the self and self-esteem is the positive or negative evaluations of the self' [2].

The role of self-esteem is very important in life for all age group and it is related to a number of factors. According to the spiritual father of Humanistic Psychology Abraham Maslow, 'without the fulfillment of the self-esteem need, individuals will be driven to seek it and unable to grow and obtain self-actualization' [3]. World Health Organization (WHO) also recommended in 'Preventing Suicide' (published in 2000) that strengthening students' self-esteem is very important to protect children and adolescents against mental distress and despondency, enabling them to cope adequately with difficult and stressful life situations [4].

In children, healthy self-esteem is related to experiencing school success, feeling happy and satisfied, making healthy lifestyle, and demonstrating effective coping skills. Low self-esteem was related to several physical and mental health disorders such as eating disorders, depression, and anxiety. In addition, low self-esteem might result interpersonal problems, loneliness, gang membership, suicidal tendencies etc. [5].

It is well documented that children are facing multiple and varied psychological challenges both at school and at home also [6]. In particular, academic stress is increasingly common in children [7], as a result of increasing pressure, there is an increase in school dropouts, under performance, teen age violence, suicide, alcoholism, drug abuse and other negative psychological outcomes [8]. In fact epidemiological research in a developing country like India shows a prevalence rate of 7 to 12 percent of emotional and behavioral problems in children [6]. Children of this age range are faced with the challenge to perform well in school [9]. Poor academic performance is often associated with low peer popularity, difficulties in paying attention, depression and even with physical complaints [10]. These issues can be managed by the enhancement in the level of self-esteem in school children.

Low self-esteem is associated with depressive symptoms in children [11]. Many children having low self-esteem get depressed easily and make suicidal attempts. Sometimes they really commit suicide after failure in exam or failure in the fulfillment of their parents' expectation. So definitely, there is a big need of the intervention program for the enhancement of self-esteem in

children. Without a strong self-esteem, teenagers may head down the wrong path in life [12]. Lower level of self-esteem is also associated with obesity. In obese children, a stronger relationship between low self-esteem and higher body mass was found [13]. In a study (on 1250 obese children ages ranged between 9 and 10 years), obese children with decreasing levels of self-esteem demonstrated significantly higher rates of sadness, loneliness, and nervousness and were more likely to engage in high-risk behaviors such as smoking, consuming alcohol etc. [14].

Yoga plays a significant role in enhancing one's mental health. There are a large number of study conducted on children to see the effects of yoga on their mental health [15], physical fitness [16], cognitive performances [17], depth perception [18], etc. but the study related to the effect of yoga on their self-esteem are very few in number. A recent study had shown the comparable effects of yoga and physical exercise on physical fitness and Stroop task performance in the school children in between group comparisons while the total self-esteem was found higher in within yoga group comparison [19].

In a randomized controlled study on the normal healthy volunteers, the improvement in the yoga group was more when compared to the physical exercises' group for all the *Gunas* (personality), with accompanying promotion of positive health and self-esteem [20]. Apart from this, yoga and cognitive behavior techniques have shown a significant decrease in academic stress and significant improvement in the mental well-being of the 10th grade school students [6].

The practice of yoga increased well-being, reduced the level of stress and helped in treatment [21]. In a pilot study, children participated in yoga reported enhanced well-being, as reflected by perceived improvements in behaviors directly targeted by yoga [22]. In a study on 77 participants, subjective well-being significantly improved after 10 days of yoga practice [23].

Keeping in mind, the already proven effects of yoga therapy on different psychological parameters, the present study was designed to develop an intervention plan based on yoga for pre-adolescents school children for the enhancement of their self-esteem level.

Research methods:-

Participants:

In this study 44 school children (26 males and 18 females) whose ages ranged between 10 and 12 years (group mean \pm S.D., 11.27 \pm 0.82 years) were selected. All the participants were studying in a school in Haridwar, north India. Healthy participants of both sexes, who were ready

to follow the study conditions, were included in this study. Participants having any physical or mental illness, or being on any medication were excluded. Signed consent was taken from the Principal of the school before starting the actual study.

Design:

The study was an experimental-control group designed study. The participants were randomly assigned to yoga and control groups using a random number table method. In this randomized controlled study 22 school children were each assigned to the yoga (8 girls out of 22) and the control group (10 girls out of 22). Assessments were made before and after 1 month of the intervention. The final number of the participants in each group remained same after the completion of the intervention i.e., after one month.

Assessment:

Self-esteem level of the participants was measured with the help of the Indian adaptation of Battle's self-esteem inventory for children (SEIC) [24]. The reliability of the questionnaire has been established for the Indian children. The inventory has 50 items with 4 subscales. The subscales were (i) general self-esteem, (ii) social self-esteem, (iii) academic self-esteem, and (iv) parental self-esteem. There are 20 items on general self-esteem, 10 items on social self-esteem, 10 items on academic self-esteem, and 10 items on parental self-esteem. The psychometric test was administered in a group. The participants were given instructions to attempt all the questions, and to complete filling the questionnaire in the given time i.e., around 20 minutes.

Interventions:

Interventions were given for one month for six days (except Sunday) in a week and the participants in the yoga group practiced yoga for 35 minutes in the school time. The classes were taught by two trained yoga teachers in a well ventilated and cleaned hall provided by the school administration. Yoga practice involved *pranayama* (yoga breathing technique), *asanas* (physical postures) and yoga relaxation technique. All the classes were started with three times of OM chanting. Details of the yoga practice were as –

- a. *Pranayama* - 12 minutes [*Pranayama* included *Bhastrika*, *Anulom-vilom*, and *Bhramri*]
- b. *Asanas* - 20 minutes [*Asanas* included sitting, standing, prone and supine postures with relaxation after each postures. The *asanas* were: *Padmasana*, *Vajrasana*, *Shashankasana*,

Singhasana, Gaumukhasana, Makarasana, Bhujangasana, Naukasana, Sarvangasana, Tadasana, Tiryak Tadasana, Katichakrasana, Vrikshasana and Padhastasana]

- c. Relaxation technique - 3 minutes [Relaxation technique included *shavasana* and feeling the effects of yoga practices]

Control group received no intervention during that time. The participants of the control group were free to read any books of their class or complete their home work or make notes etc in the classroom only under supervision of a school teacher.

Data Extraction:

The self-esteem inventory was binomial ('No' or 'Yes'). Scoring was done according to the manual of SEIC. Total self-esteem was calculated by adding the scores of all 4 sub-scales i.e., general, social, academic and parental self-esteem.

Data Analysis:

To measure the significant difference between the groups mean, unpaired *t*-test was used to compare data recorded after one month of the yoga group with the control using SPSS version 18.0.

Results:

After one month, the yoga group showed a significant increase in the level of total self-esteem ($p < 0.05$), general self-esteem ($p < 0.01$) and social self-esteem ($p < 0.01$). Details of the results are mentioned below in Table 1.

Table 1: Showing the results before and after the intervention

S. No.	Variables	Group	State	Mean	S.D.	N	Df	p-value	Level of significance
1.	Total Self-esteem	Yoga	Pre	36.14	4.99	22	42	0.02	p<0.05
		Control		36.14	4.94	22			
		Yoga	Post	39.45	4.11	22			
		Control		35.18	6.94	22			
2.	General Self-esteem	Yoga	Pre	12.77	2.54	22	42	0.01	p<0.01
		Control		12.50	3.10	22			
		Yoga	Post	15.00	1.80	22			
		Control		12.68	3.23	22			
3.	Social Self-esteem	Yoga	Pre	5.77	1.74	22	42	0.01	p<0.01
		Control		6.45	1.37	22			
		Yoga	Post	6.82	1.30	22			
		Control		5.64	1.73	22			
4.	Academic Self-esteem	Yoga	Pre	8.55	1.14	22	42	0.21	Not Significant
		Control		8.41	1.40	22			
		Yoga	Post	8.64	1.29	22			
		Control		8.09	1.54	22			
5.	Parental Self-esteem	Yoga	Pre	9.00	1.68	22	42	0.62	Not Significant
		Control		8.77	1.07	22			
		Yoga	Post	9.05	1.41	22			
		Control		8.77	1.60	22			

Discussion and conclusion:

According to the statistical analysis, the yoga group showed a significant increase in the level of total self-esteem ($p<0.05$), general self-esteem ($p<0.01$) and social self-esteem ($p<0.01$) after one month when the pre data were compared with the post. There was no significant difference found in academic and parental self-esteem as the baseline level of the academic and parental self-esteem was already high which can be seen in the manual of SEIC.

Yoga is an ancient and well-known Indian technique, which includes physical postures (*asanas*), voluntary regulated breathing (*pranayamas*), meditation, as well as certain philosophical principles [25]. The practice of breathing exercises, *pranayama*, and the systematic breathing during *asanas* regulates the breathing mechanism, trains the abdominal and chest

muscles, and also improves the vital capacity and stamina [26]. Physical activity is positively associated with self-esteem and it is an important part in yoga practice (*asanas*). Many researchers have reported the strong relationship of taking participation in physical activity with self-esteem [27]. A study demonstrated that physical activity had a positive relationship with self-esteem and a negative relationship with BMI. The analysis revealed that both males and females who were more physically active had considerably higher levels of self-esteem [28]. According to Greenberg & Oglesby, engaging in physical activity has a positive impact on mood and self-esteem. Physical activity can improve self-image, self-confidence, relieve stress and tension, increase alertness, energy, reduces loneliness, shyness, hopelessness and ability to cope with stress [29, 30]. But yoga is a lot more than mere physical activity. It's quite evident that after practicing yoga everyone feels activeness in their physical and mental level and it can be the one strong cause of increased self-esteem after yoga in children.

The psychological benefits of yoga include an increase in somatic and kinesthetic awareness, positive mood, subjective well-being, self-acceptance, self-actualization, social adjustment and decrease in levels of anxiety, depression and hostility [31]. According to Temmi Sears, 'the primary benefit of yoga is enhanced self-esteem' (as cited in Peters, 2003) [32]. In a study on 13 to 14 years aged adolescents, self-esteem increased significantly across time in both the yoga and physical education activity control group after eight weeks of intervention [33].

Yoga may help teenagers to learn about their body and discover what their strengths and limitations are. Yoga allows teenagers to visualize, relax and enter a noncompetitive environment [33]. Self-esteem requires a self-evaluation process in which individuals compare their description of themselves with their real self [34]. Yoga practices reduce anxiety through relaxations and hence induce a general feeling of well-being [35]. Slow and deep breathings are known to increase the parasympathetic tone and are associated with a calm mental state [36]. This way yoga tries to correct the basic limitations of the mind by improving self-awareness, self-control, and self-esteem [37].

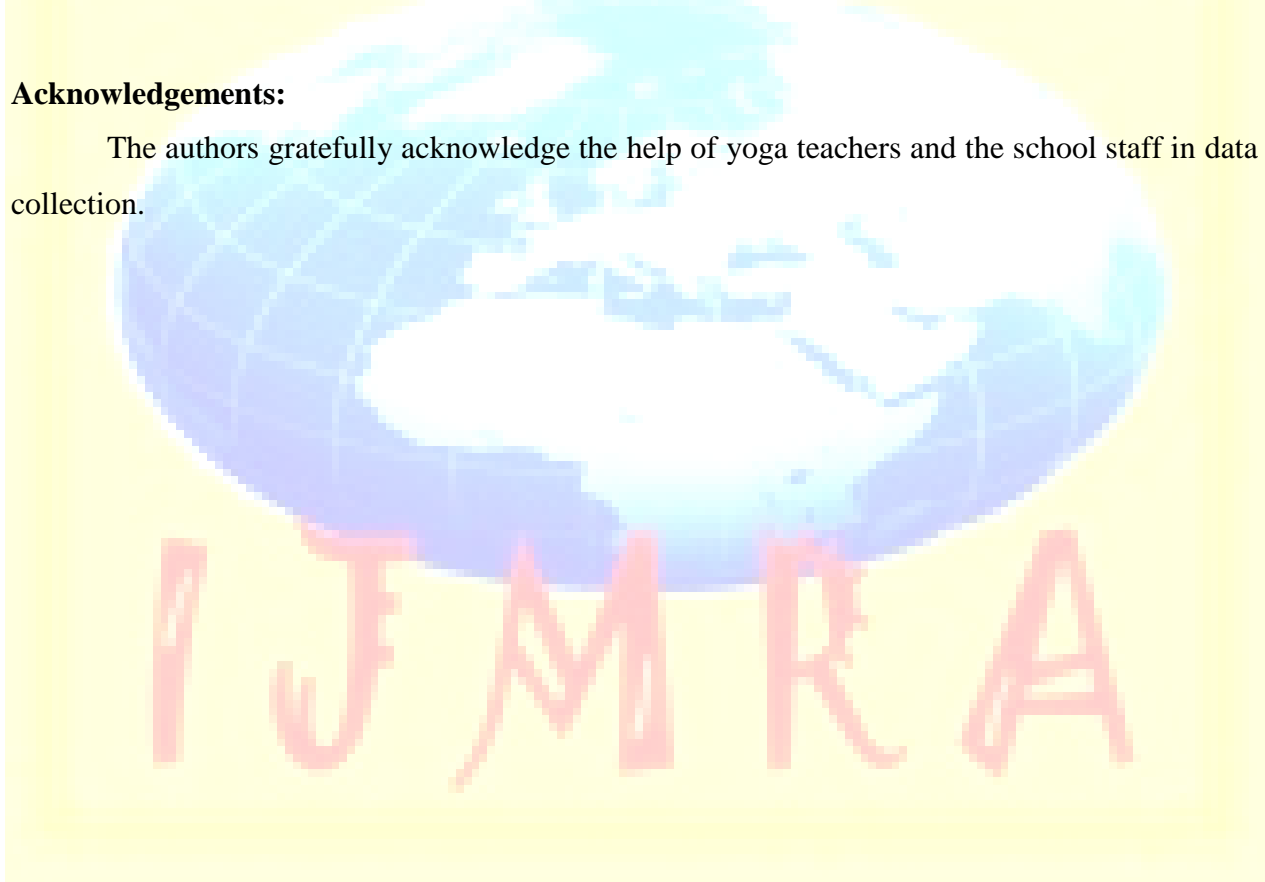
In deeper sense, yoga teaches us about self-evaluation. After regular practice of yoga with systematic and balanced breathing, one can feel the closeness with his/ herself and feel the distance from the outer world. This self-evaluation is important because the subject is able to assess what they know, what they don't know and what they would like to know. They begin to

recognize their own strengths and weaknesses, and will be able to set goals that they know they can attain with the new knowledge they have about themselves [38].

Findings of the present trial can play an important role for the children having low self-esteem. School administration and the parents of the children will be also benefited. Further study can be planned to see the long-term effects of yoga on self-esteem in children from different population and having different socio economic status. Study with same protocol on large population can be planned and the results after follow-up of the same will be interesting. Of course, in the present time there is a big need of such type of simple plans to be incorporated in daily routine as well as in the school curriculum to enhance the level of self-esteem in children.

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